



# Georgia Institute of Technology

President G. Wayne Clough

Board of Regents  
October 12, 2004

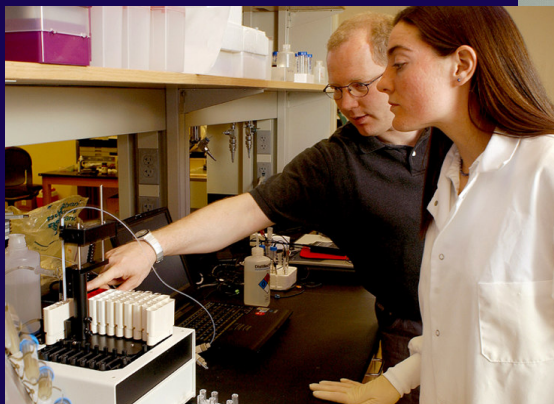


# Recognized excellence

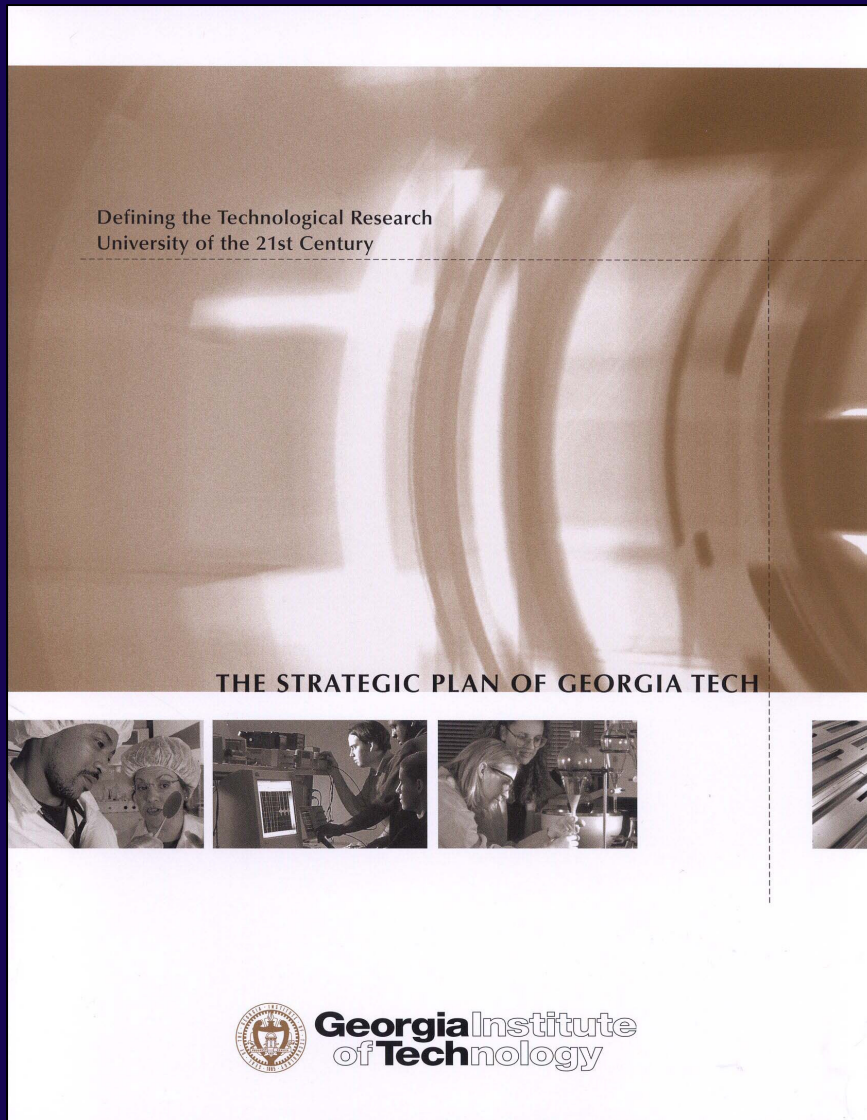
- ⇒ Among nation's top 10 public universities.
- ⇒ Among nation's top 5 engineering schools.
- ⇒ Nationally ranked for computing, architecture, management, and selected science and liberal arts programs.

# Vision and Mission

Georgia Tech will define the technological research university of the 21st century and educate the leaders of a technologically driven world.







# Strategic goals

- ⇒ Student-focused education
- ⇒ Diverse community
- ⇒ Enhance research enterprise
- ⇒ Expanded outreach
- ⇒ Intelligent development of technology
- ⇒ Supportive administrative infrastructure
- ⇒ Facilities improvement and expansion



# Students

16,837 students enrolled:

⇒ 11,542 under-graduates

⇒ 5,295 graduate students

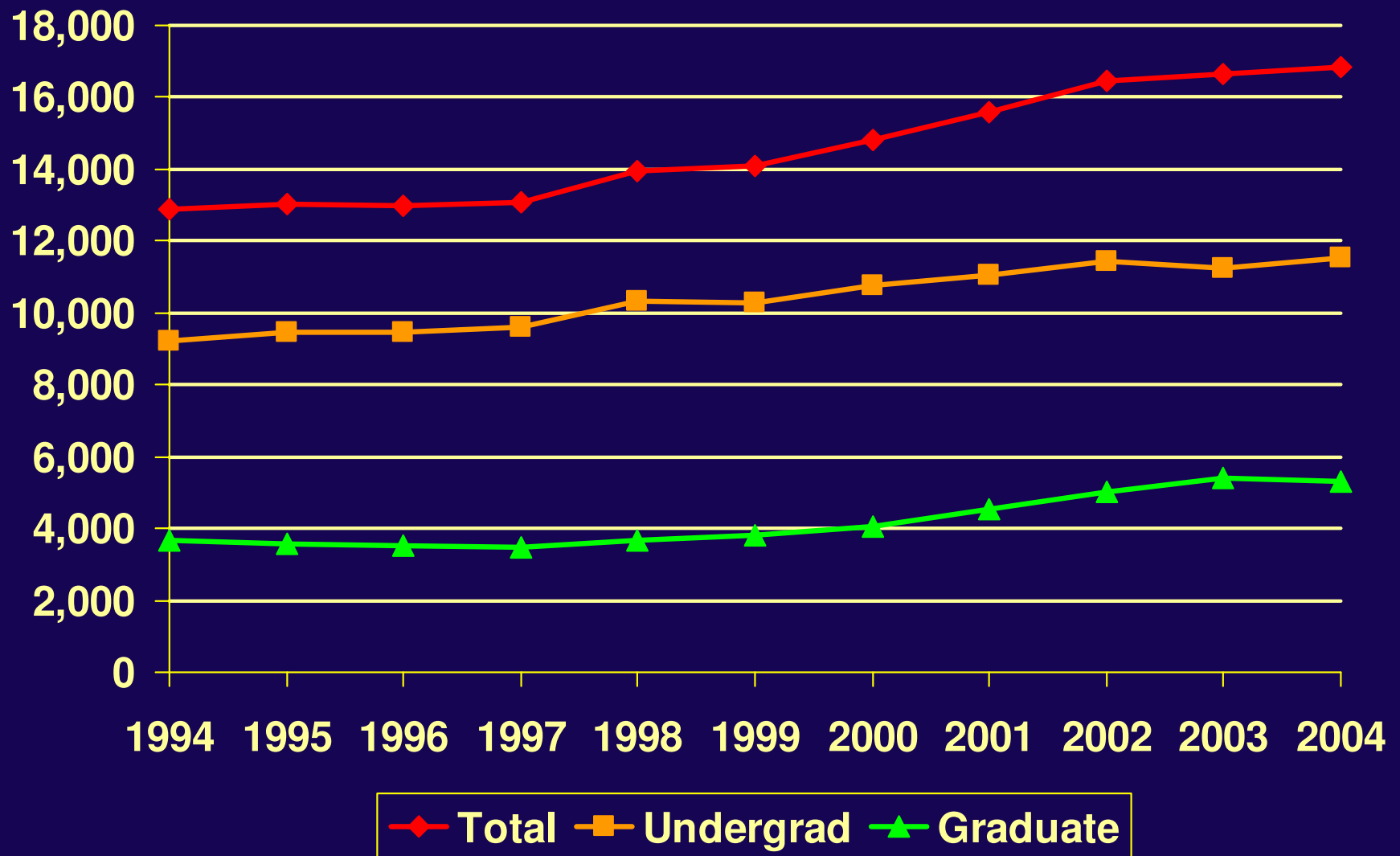
⇒ 16,182 here in Atlanta

⇒ 655 at other campuses or on-line

Georgia Tech is a national leader in graduating engineers, including minorities & women.



# Fall enrollment





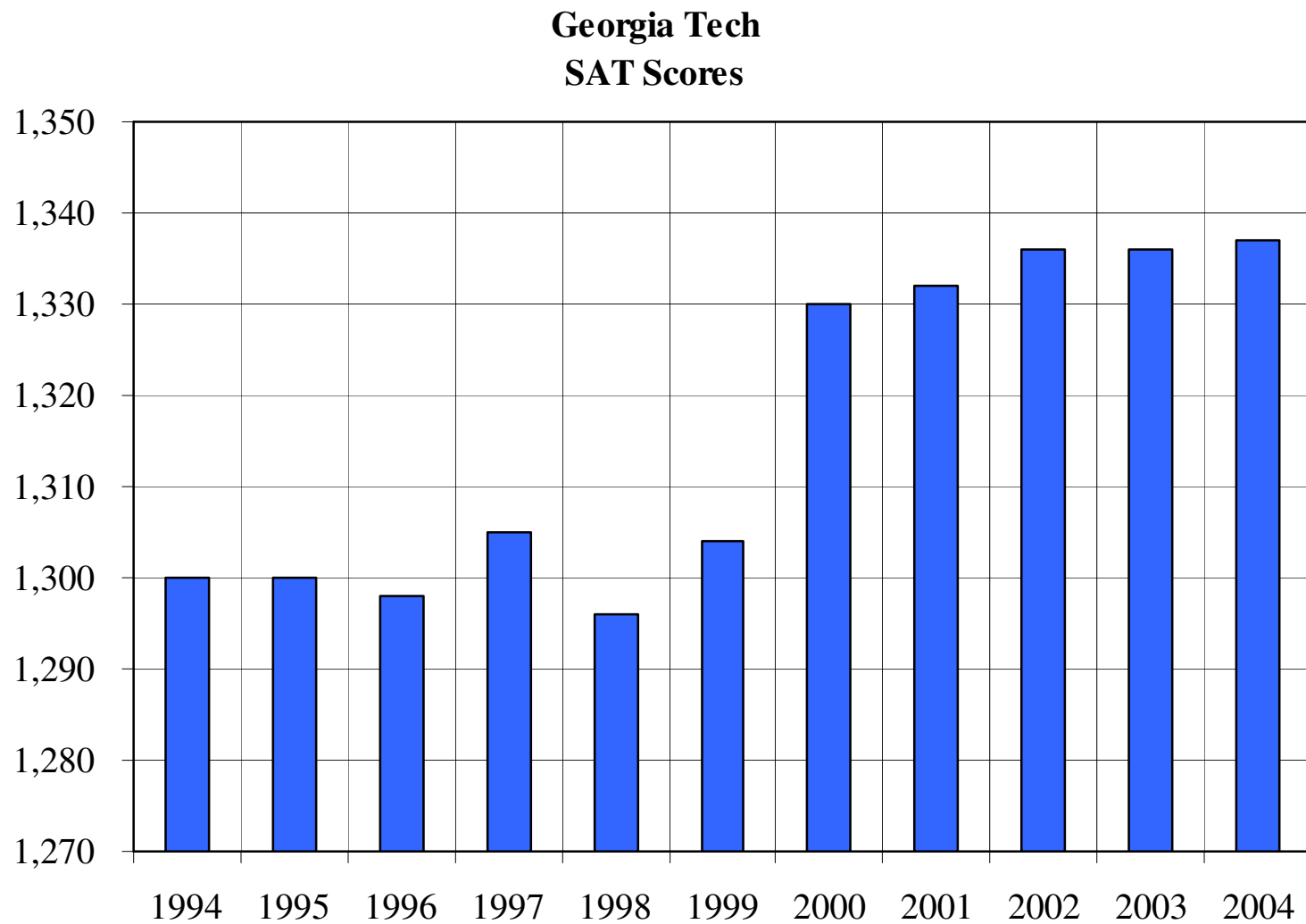
# Incoming freshmen

- ⇒ 2,600 students (+18%)
  - 782 women (+28%)
  - 153 African Americans (+21%)
  - 105 Hispanics (+48%)
  - 116 international (+35%)
- ⇒ 1337 average SAT
- ⇒ 8 perfect SATs, 1 perfect ACT
- ⇒ 5 sets of twins



# Average SAT scores

Incoming freshman class



# Students shine

Blair Dowling, winner of the  
Phi Kappa Phi Scholarship

Cup for the  
best scholastic  
record of the  
2003 gradua-  
ting class:  
Homeland  
Security  
Fellowship



Monique Gupta:  
Churchill  
Scholarship



## Goldwater Scholarships:

Thomas Oliver  
Mark Callaghan



Laurence Ralph:  
Mellon Fellowship in  
Humanistic Studies



Gabe Brostow:  
Marshall Sherfield  
Fellowship



Jia Xu: Marshall  
Scholarship

# Students innovate



GT Motorsports won  
Formula SAE in  
Australia



Architecture  
students  
developed and  
tested a middle-  
school program  
in design

Computing  
team  
competed in  
international  
programming  
in Prague



“Diametric” won Campus  
MovieFest, trip to  
Hollywood for students



# Students contribute

11 Alive News photo



President Bush recognized Brandon Gray's volunteer work with low-income preschoolers.



Football team built a Habitat for Humanity house over the summer.

Computing students designed a website to support Cut Out Hunger.



Tech students helped

Centennial Place Elementary School become Atlanta's top achiever.

# Academic programs



Six colleges:

Architecture

Computing

Engineering

Ivan Allen College of Liberal Arts

Management  
Sciences

New degrees:

Biomedical engineering

Bioinformatics

Human-computer interaction

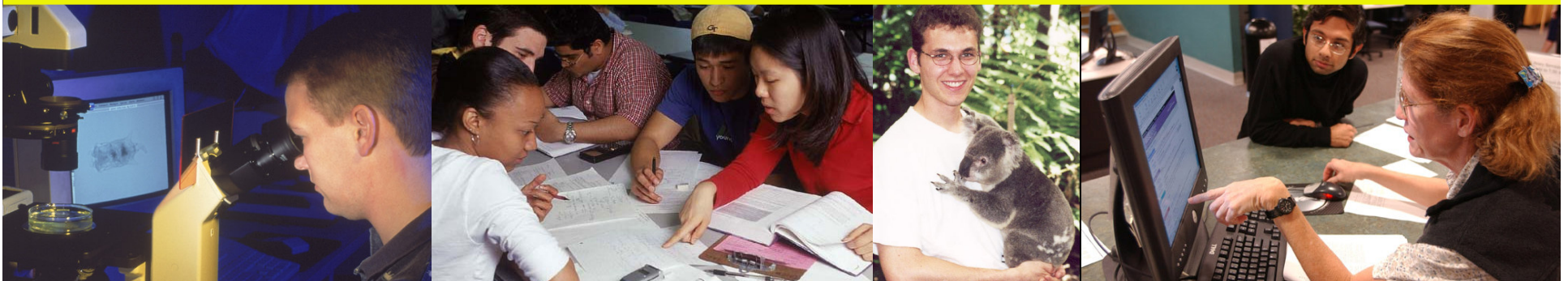
Quantitative computational  
finance

Digital media



# Undergraduate initiative

- ⇒ Student computer initiative; Web-enhanced curriculum
- ⇒ Mid-semester grade reports and follow-up help for lagging students
- ⇒ Undergraduate research opportunities
- ⇒ Expanded international study options
- ⇒ Enhanced student life/leadership options
- ⇒ 1999 Hesburgh Award





# Creating innovative programs



Price Institute Innovative  
Entrepreneurship  
Educators Award: TI:GER  
(Technological  
Innovation: Generating  
Economic Results)



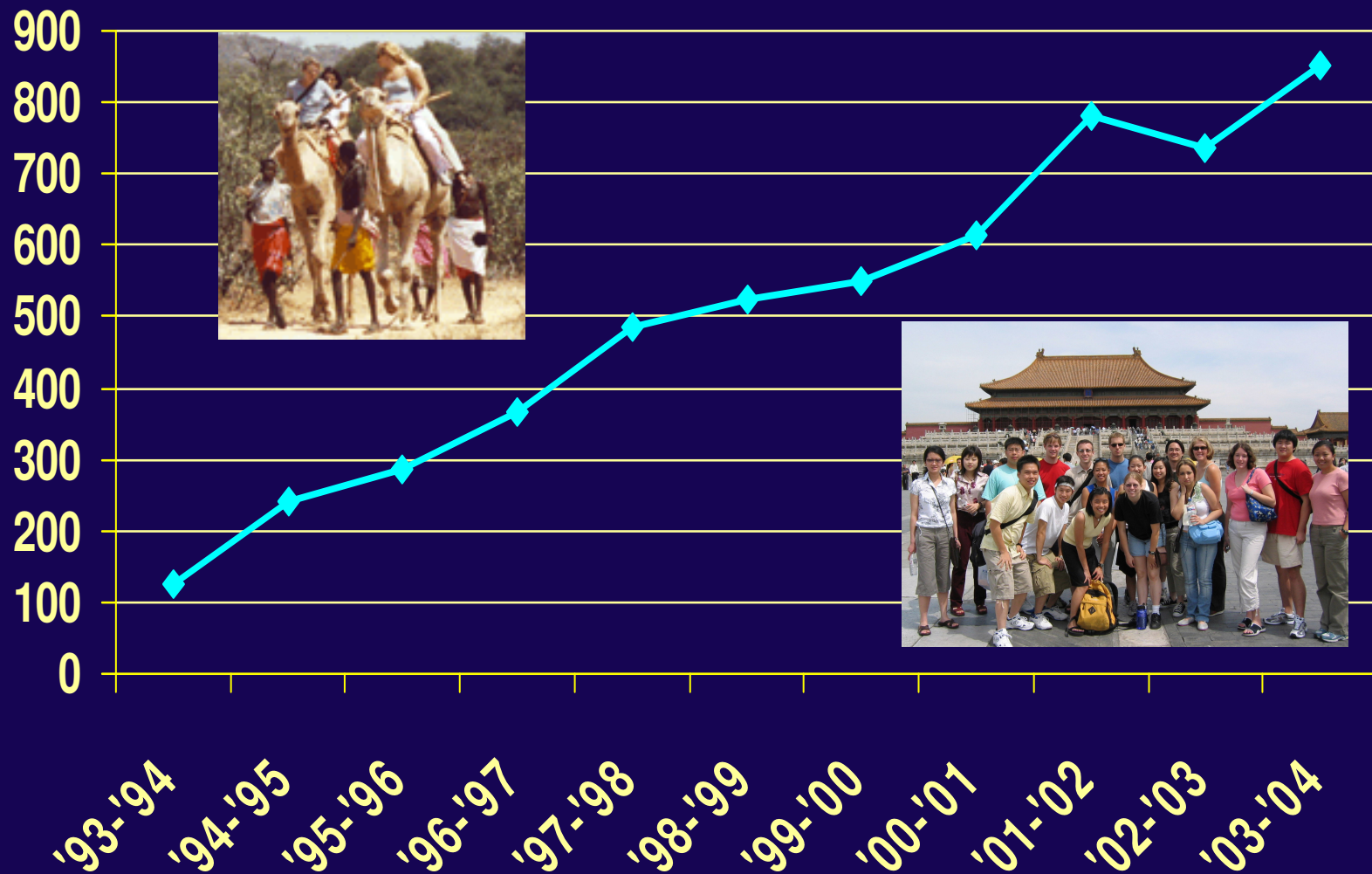
Board of Regents  
Award for  
Excellence in  
Teaching: School of  
Modern Languages



McEver Program  
for Engineering  
and the Liberal

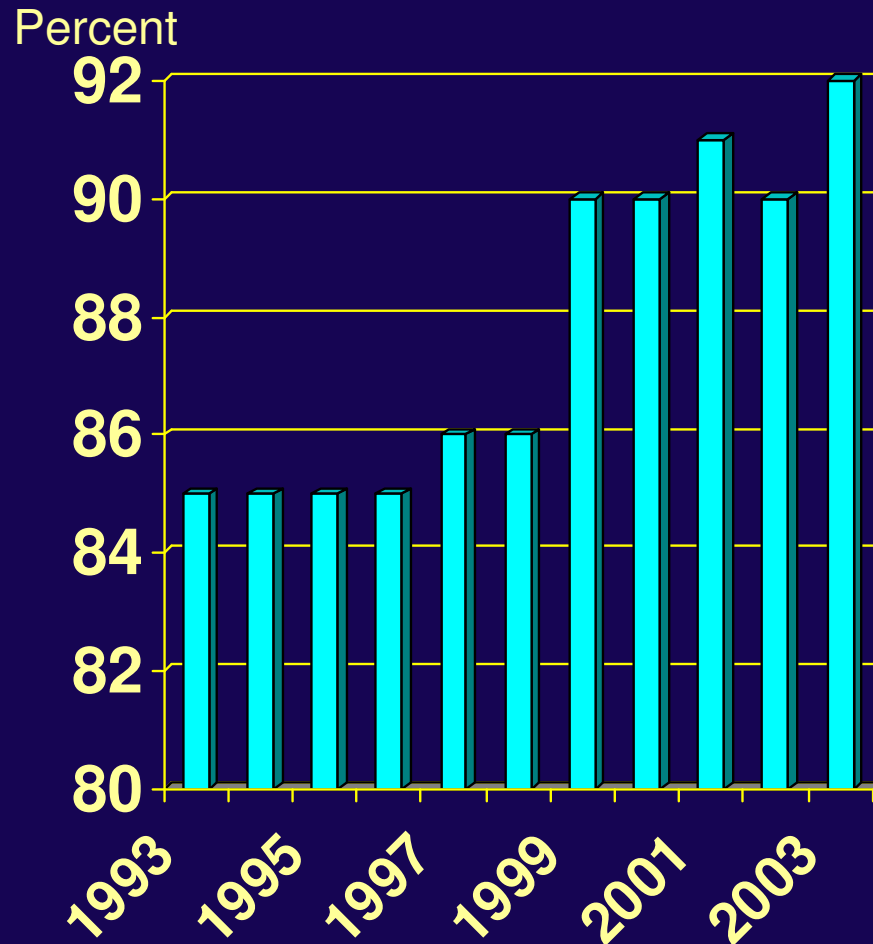
Arts: Offers unique seminars that  
consider the impact of  
engineering on the liberal arts  
and vice versa

# Students studying abroad

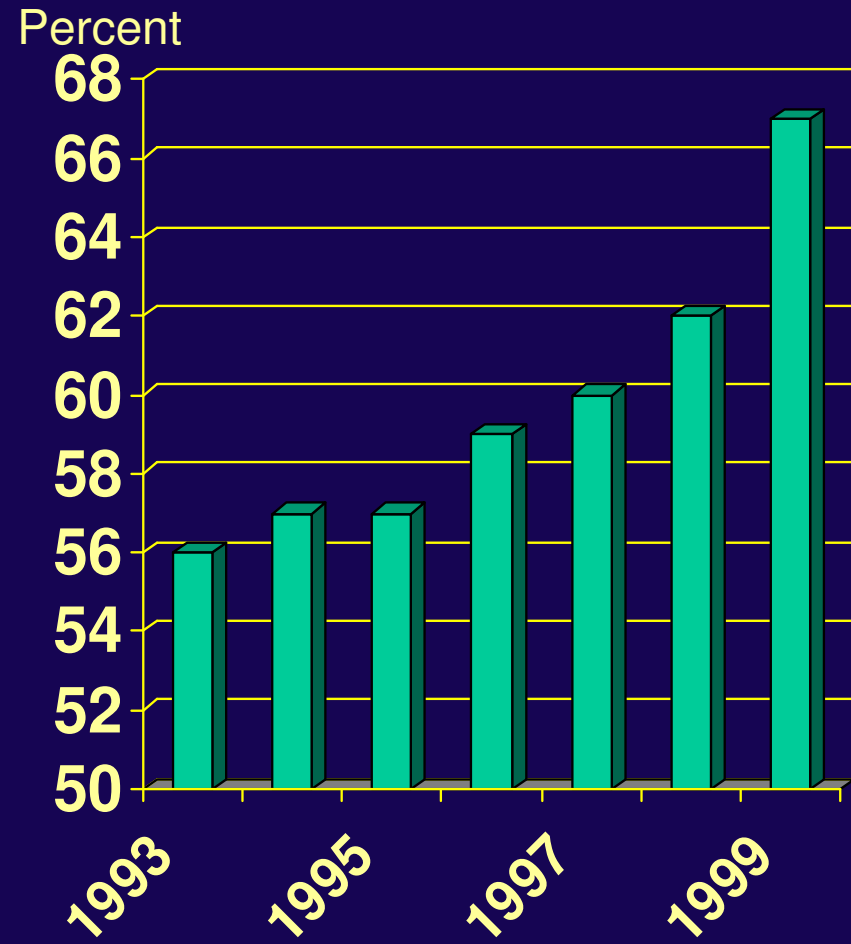


# Retention, graduation improve

1<sup>st</sup> year retention



5 year graduation

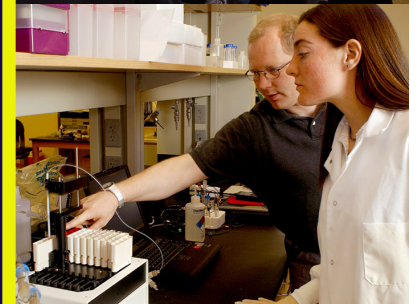
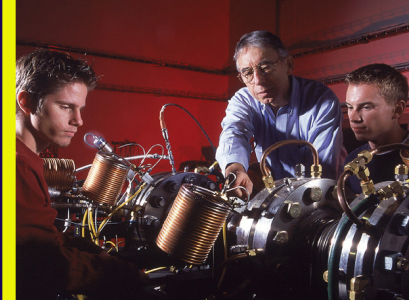
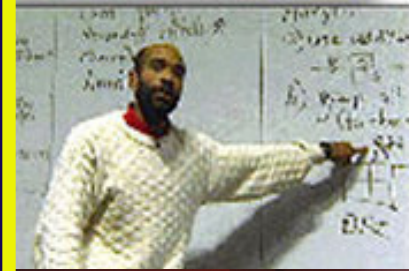


Year enrolled as freshmen



# Faculty

- ⇒ 923 academic faculty (57% from state funds)
- ⇒ 955 research faculty; 185 post-doctoral fellows (17% from state funds)
- ⇒ 115 endowed chairs and professorships
- ⇒ 30 National Academy members
- ⇒ 101 NSF CAREER/PECASE Awards



# Faculty honored

National Medal of  
Technology:  
Russell Dupuis,  
elec and comp  
engineering



Presidential Early  
Career Award for  
Scientists and  
Engineers: Julia  
Kubanek, biology



Presidential Green Chemistry  
Challenge Award: Charles Eckert,  
chemical & biomolecular engineering,  
and Charles Liotta, chemistry



Descartes Prize  
(prestigious  
European award  
for collaborative  
research): Jean-  
Luc Bredas,  
chemistry &  
biochemistry

# Four campuses on three continents



Georgia Tech-Atlanta



Georgia Tech-Lorraine



Georgia Tech-Savannah



Georgia Tech-Singapore



# GTREP: Goals and objectives

- ⇒ Develop transportable model
- ⇒ Meet regional workforce need for engineers
- ⇒ Enhance access to engineering education with innovative programs
- ⇒ Build a sponsored research and tech transfer environment for regional economic development
- ⇒ Students first



# About GTREP

## ⇒ SE Georgia partners

- Georgia Southern University
- Savannah State University
- Armstrong Atlantic State University
- GT-Savannah
- Skidaway Oceanography Institute

## ⇒ Upper-level B.S. programs

- Civil eng
- Computer eng
- Electrical eng
- Mechanical eng

## ⇒ M.S. programs

- ⇒ Civil & environment eng
- Electrical & computer eng
- Mechanical eng

# GTREP Stats

- ⇒ 16 faculty/110 onsite courses
- ⇒ 63 “distributed learning” courses in current semester
- ⇒ Students: 450 underclassmen, 140 upperclassmen, 37 graduate
- ⇒ 100% of graduates have jobs, 65% remained in SE Georgia
- ⇒ \$3 million in sponsored research expected



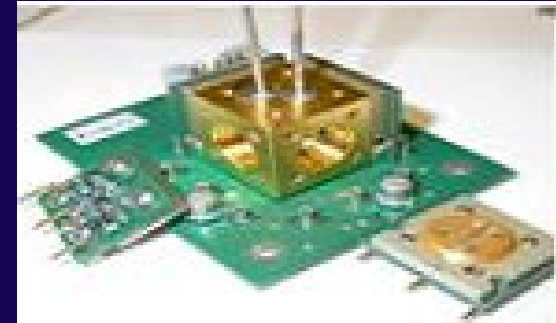
Nanotechnology



# Research Thrusts



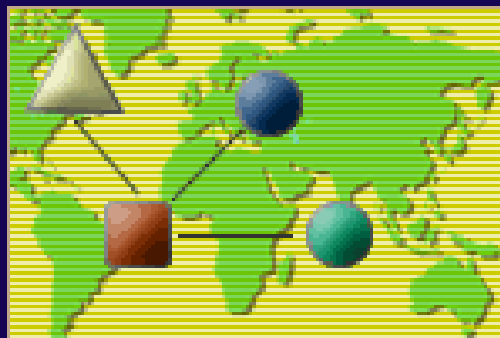
Biotechnology/  
nanomedicine



Microelectronics/  
telecommunications



Sustainable Technology



Logistics



Manufacturing



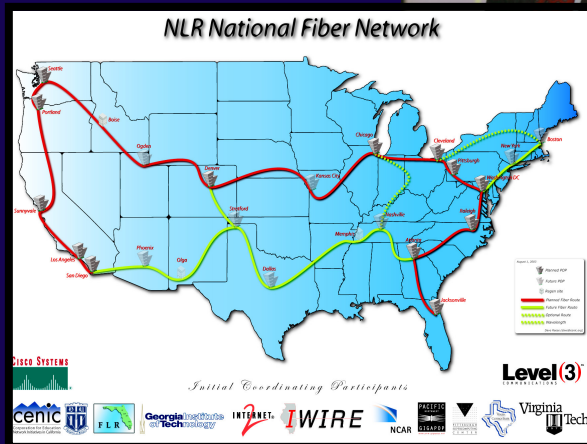
# Research: New milestones



- ⇒ Awards: \$342 million
- ⇒ Expenditures: ~\$425 million (\$23 million in state funds)
- ⇒ Among top 5 nationally of universities without med school
- ⇒ Invention disclosures: 277
- ⇒ NIH: \$17.2 million (doubled in past 2 years)
- ⇒ Ovarian Cancer Institute

# National Centers of Excellence

- ⇒ ERC Packaging Research Center
- ⇒ Center for Organic Photonics & Electronics
- ⇒ Center for the Engineering of Living Tissues
- ⇒ Mid-America Earthquake Center
- ⇒ Center for Environmentally Responsible Solvents and Processes



# Tech's national presence

- ⇒ National Innovation Initiative
- ⇒ Sam Nunn Policy Forum on Bioterrorism
- ⇒ National Lambda Rail
- ⇒ National Nanotech Infrastructure Network
- ⇒ PCAST/NSB

# Athletics excels

15 of 17 teams in post-season play.  
Lacrosse, rowing clubs go national.

First basketball team from Georgia  
to play in the Division I-A National  
Championship Game.



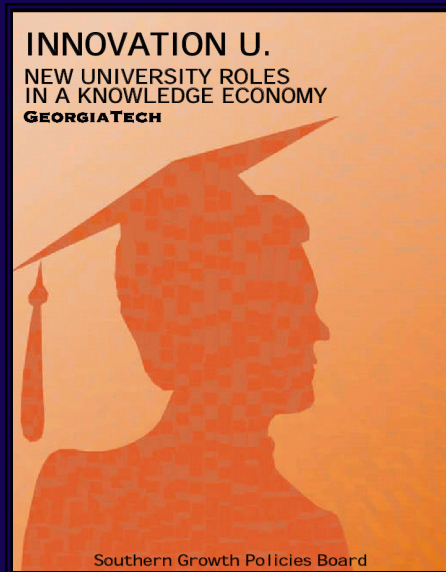
Volleyball  
team finished  
its season  
ranked 8<sup>th</sup> in  
the nation.



Baseball team  
won 20 straight,  
became NCAA  
Atlanta Region  
Champs.



# Economic development



“Virtually every combination of industry relationship or economic development activity can be found at Georgia Tech, and in a very real sense the school is an operating partner with Georgia state government.... **Perhaps more than any other research university in North America, economic development is an integral, critical component of the mission of the Georgia Institute of Technology,** and this has been true from its very inception.”

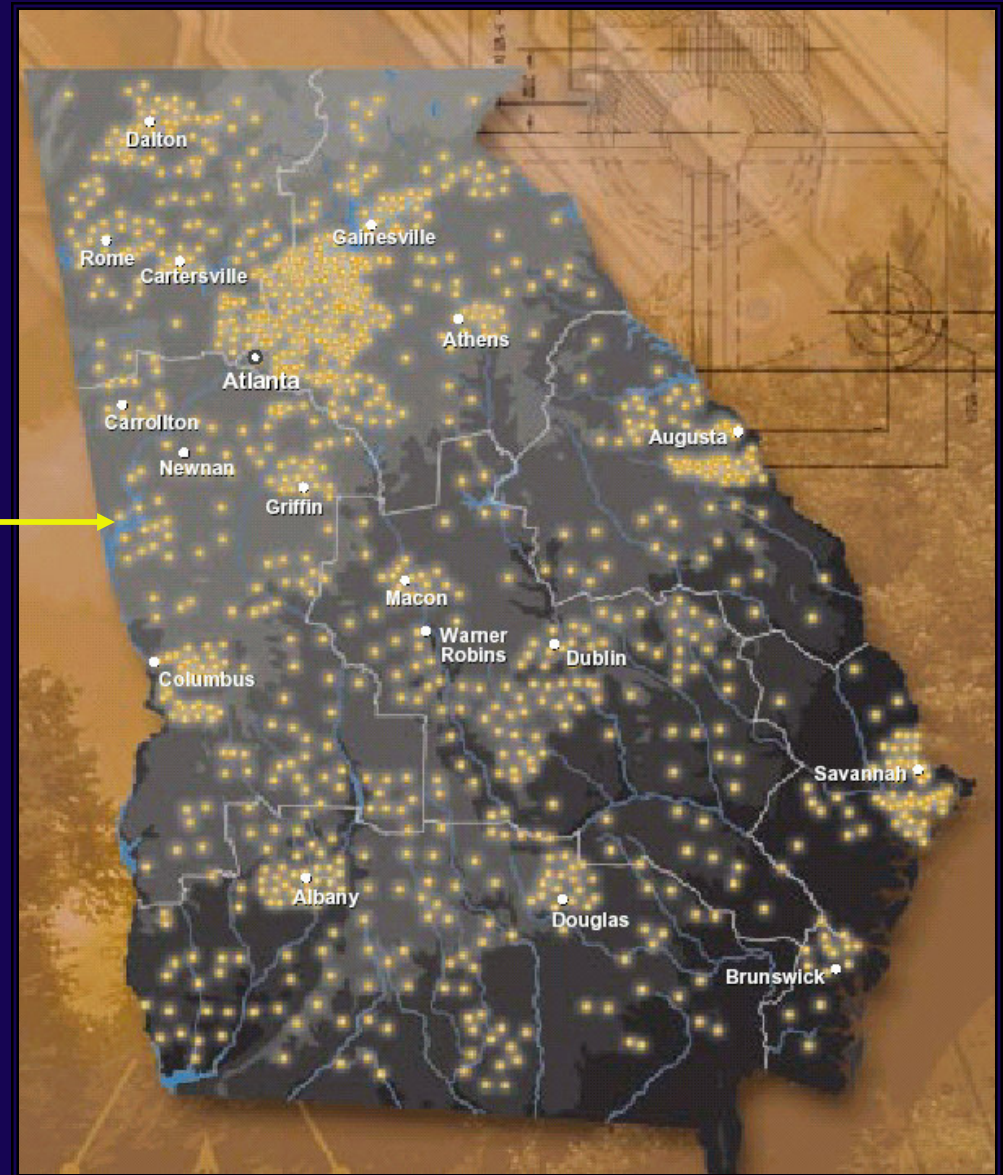
Southern Growth Policies  
Board *Innovation U* study

# Georgia Tech reaches out to companies, communities, and the world

Each dot represents a company  
or community assisted.

Statewide network of  
~~17~~  
13 regional offices.

Global Learning &  
Conference Center:  
Delivers education  
anywhere in world







ES&T

Technology Square



GCATT



Savannah

# ATDC facilities



France



Columbus

*Where are we headed?*

## Competing in a global environment

- ⇒ India, EU, China out-produce the US in engineers and scientists.
- ⇒ India, China, EU are investing in higher education and technology-based economic development.
- ⇒ Our lead in innovation is dwindling.
- ⇒ By 2050 China will have the world's largest economy.
- ⇒ By 2020, of "100" people, 56 in Asia, 4 in US.
- ⇒ Georgia competes with the likes of Shanghai, Bangalore, and Moscow for tech industry.



# Campus growth

Campus Rec Center



Stamps Student Center Commons

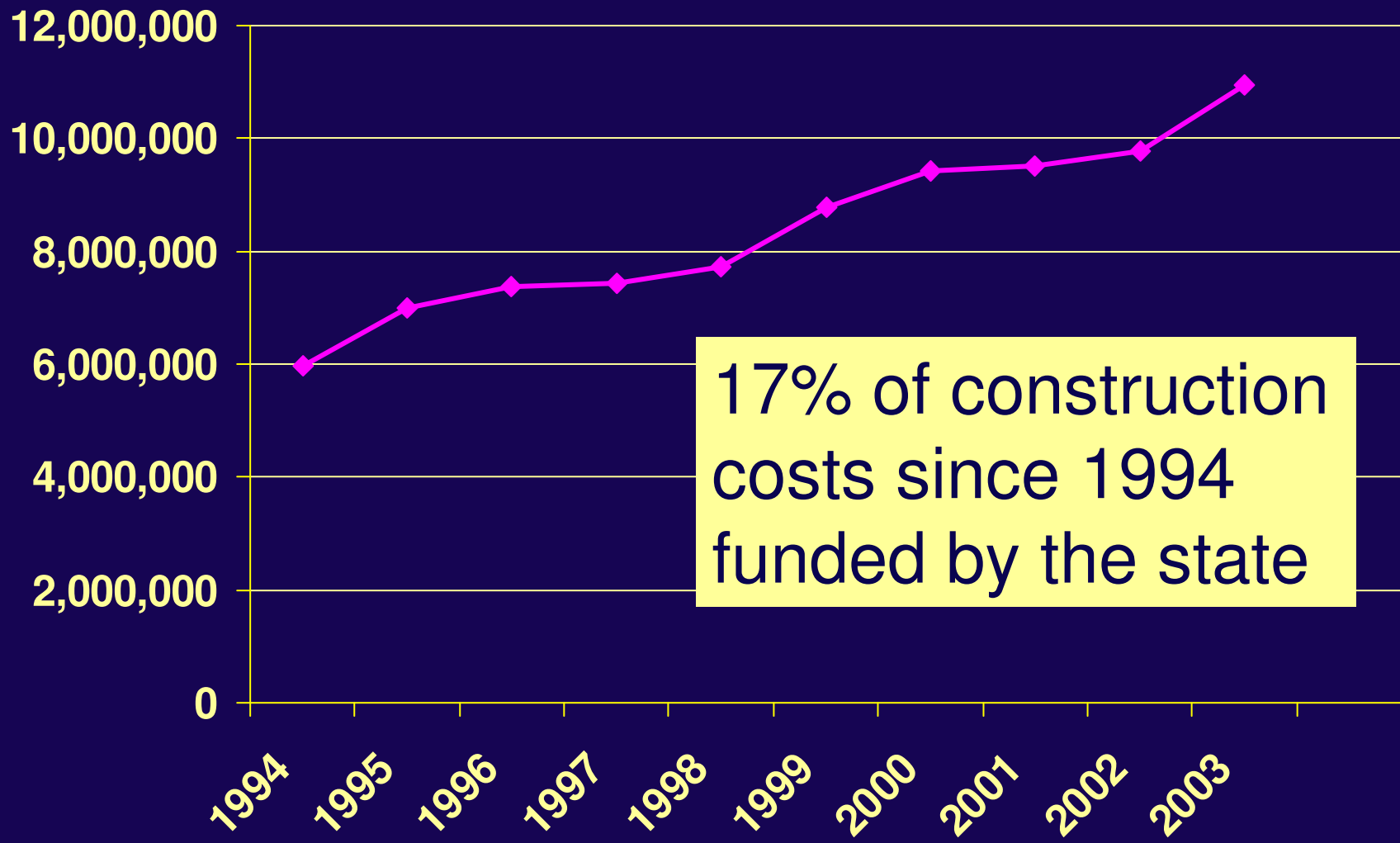


Klaus Advanced Computing Building

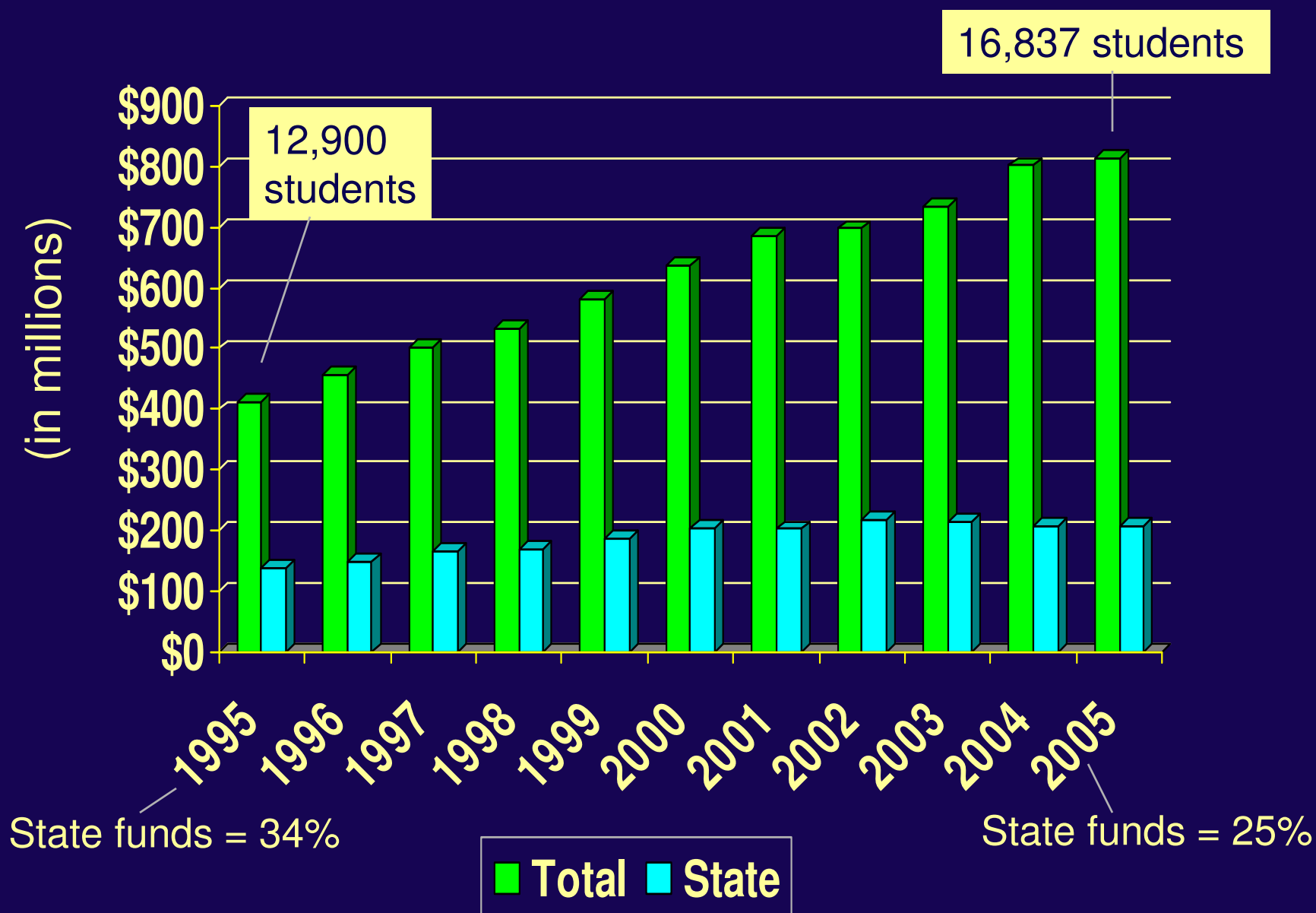


Molecular Science and Engineering Building

# Campus square footage



# Budget expenditures



Hearing from our  
students and faculty



“The choices we make and the solutions we devise must support one key principle – we will maintain and strengthen academic excellence!”

Chancellor Tom Meredith

- ⇒ We believe GIT has been a leader for academic excellence in the University System.
- ⇒ At the core, adequate state funding is essential if we are to serve our great students, remain a top institution, and help Georgia compete economically in a global context that will be ever more challenging to maintain our present standard of living.